



11 Briardale Gardens NW3 7PN2

Phase II Arboricultural Impact Assessment Arboricultural Method Statement (AMS)

(Ref. 101 565)
Date: 22/12/2020

Prepared by:
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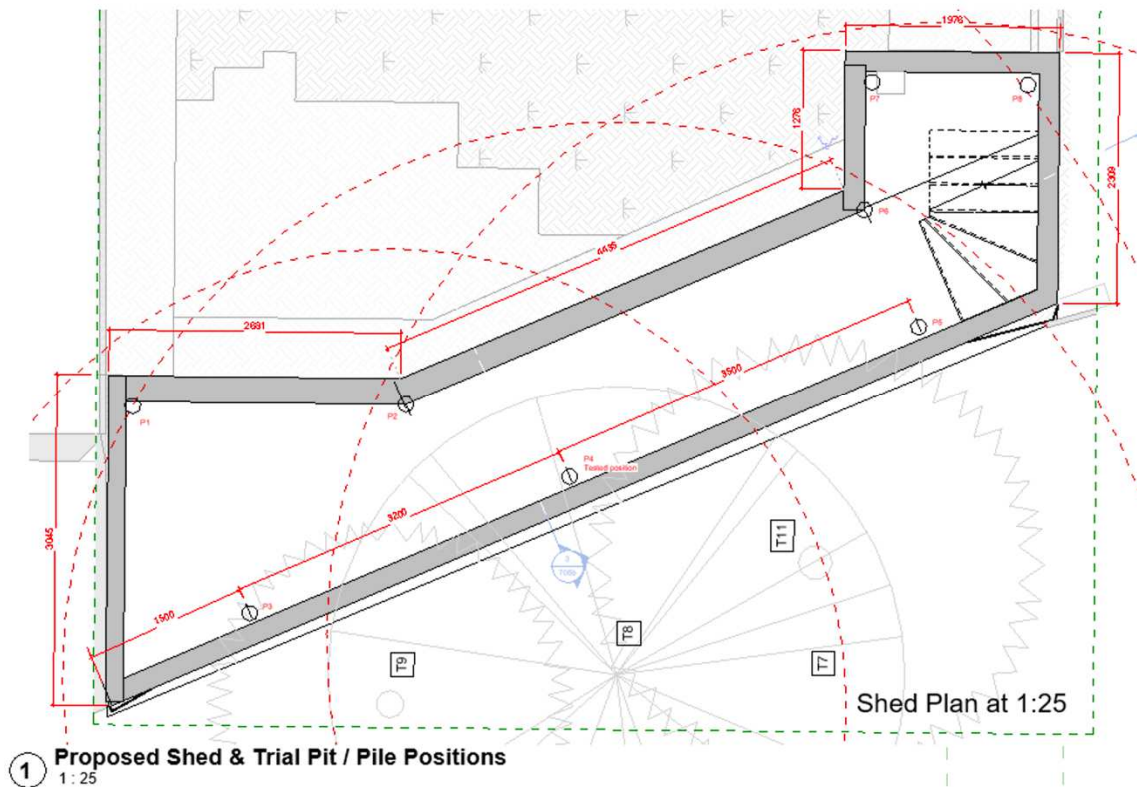
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1.0 INSTRUCTIONS

Arbol Euro Consulting Ltd. is instructed to assess the off-site trees in regard to the proposed on-site development. See the appended Tree Protection Plan (TPP) and Arboricultural Method Statement (AMS). We visited the site in March 2019 to carry out the tree survey. Since this survey via LPA planning permission, all the on-site trees T1-T4 have been removed.

The proposal: A bike shed running along the end of the rear garden the ground-floor slab of which is to be supported on a series of eight mini-piles. See Fabric Space *Landscaping – Shed Proposal* drawing (no. 1901_FS_705b_) extract below (**NB** extract not to scale).



The AMS to be read in conjunction with the appended TPP and tree survey.

2.0 OBSERVATIONS, CONCLUSIONS AND RECOMMENDATIONS

2.1 In regard to this AMS no tree removal or tree pruning is required.

2.2 As plotted on the Tree Protection Plan at Appendix 2, with the implementation (in a timely manner) of the tree protection measures specified in this AMS there should be no significant build impact on any of the adjacent off-site trees: T7-T13.

2.3 Site Supervision Responsibilities: This would be an essential element during the proposed build to ensure effective tree protection. See section 6.0 in the appended in the Arboricultural Method Statement.

3.0 REFERENCES

- BS 5837; 2012 'Trees in relation to design, demolition and construction - Recommendations' British Standards Institute, London
- BS 3998; 2010 'Tree Work Recommendations' British Standards Institute, London
- NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees' 2007 National Joint Utilities Group (NJUG) Volume No. 4: No. 1.

- Arboricultural Practice Note 12; 2007 – AAIS
- *'Availability of Sunshine'* BRE - CP 75/75
- *'Tree Roots in the Built Environment'* 2006 - Dept. for Communities & Local Government (DCLG).
- *'Up by Roots: healthy soils & trees in the built environment'* 2008 James Urban, International Society of Arboriculture.
- *'Arboriculture'*; 1999 3rd edition R. Harris, J. Clarke & N. Matheny. Prentice Hall.
- *'Soil Management for Urban Trees'* 2014 International Society of Arboriculture, Best Management Practice series.

AMS APPENDICES

1. Tree Survey Schedules & Table 1 - Category Grading (Quality Assessment)
2. Tree Protection Plan
3. Arboricultural Method Statement

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APPENDIX 1

TREE SURVEY SCHEDULE
(see appended at end of report)
3 pages

APPENDIX 2

TREE PROTECTION PLAN

(see appended to the report)

NB The original of this plan was produced in colour – a monochrome copy should not be relied upon.

APPENDIX 3

ARBORICULTURAL METHOD STATEMENT

3 pages

ARBORICULTURAL METHOD STATEMENT (AMS) Site: 11 Briardale Gardens NW3 7PN

To be read in conjunction with the appended Tree Protection Plan

NB The original of this plan was produced in colour – a monochrome copy should not be relied upon.

This AMS lays down the methodology for any demolition and/or construction works that may have an effect upon trees on and adjacent to this site. It is essential within the scope of any contracts - related to this development - that this AMS is observed and adhered to. It is recommended that this document forms part of the work schedule and that specifications are issued to the building contractor(s) and these must be used to form part of their contract.

Consulting Arborist contact details: Russell Ball – mob. No. 078844 26671

SEQUENCE OF WORKS

From commencement of the subject development, the following methodology will be implemented in the manner and sequence described:

1. Pre-commencement site meeting.
2. Arboricultural pruning and/or removal works
3. Erect *temporary* staked Tree Protection Barriers (TPBs) to establish the fenced-off Construction Exclusion Zone (CEZ): **before** any construction works begin on-site.
4. Route underground services: not within the RPAs of any retention trees.
5. Main construction works.
6. Site Supervision Responsibilities
7. Site Monitoring

1. PRE- COMMENCEMENT SITE MEETING

To outline on-site working methods in relation to trees prior to any construction activity, a site meeting of the following shall take place:

- Client
- Architect/Planning Consultant
- Structural Engineer
- Main Contractor
- LPA Arboricultural Officer (*optional*)
- Consulting Arborist
- Site Agent

2. ARBORICULTURAL PRUNING AND/OR REMOVAL WORKS

1. None required.

3. ERECT *TEMPORARY* STAKED TREE PROTECTION BARRIERS (TPBs)

1. None required as there is an existing rear boundary fence

4. ROUTE UNDERGROUND SERVICES

1. We are advised that an underground lighting cable has been installed that runs from the rear elevation of the property and along/under the southern edge of the rear garden path. See marked up as a red line on the appended TPP.

5. MAIN CONSTRUCTION WORKS

1. **Removal of the Soil Bank:** This shall be removed by operatives using gardens spades and wheel-barrows (i.e. not using a mini-JCB). If carried out in wet weather, the wheel barrows could run over MDF sheeting to prevent any soil rutting.
2. **Mini-piling Rig (MP-R) and access.** The M-PR will be brought into the site along the side passage way and along the garden path up to the mini-pile location no. 7 and 8. See Note 2 and the blue arrows on the appended TPP.
3. **Mini-piling Rig (MP-R) and *temporary* ground protection matting (TGPM).** In order to operate the MP-R around the footprint of the bike store and install the piles 1-8 within the Root Protection Area incursion from the off-site trees it shall run on TGPM. We recommend the use of Durabase (<http://terrafirma.gb.com/>) [see example below], Ground Guards (www.greentek.org.uk) or Eve-Trackway

(<http://www.evetrakway.co.uk/>) due to their recognised *anti-soil compaction* properties (i.e. to protect underlying tree roots). These TGPMs can be moved by operatives as the MP-R tracks backwards and forwards – using a limited number of TGPMs – rather than covering the entire bike shed footprint with this matting.



4. **Preparation of/importing concrete for the Bike Shed Ground Floor Slab:** There are two options (A) concrete piped in from the street with 'Mixa-Mate' lorry or (B) concrete batch-mixed in the rear garden and wheel-barrowed in along the side path using the route for the MP-R.
5. If option B is elected then see area plotted (blue boundary zone) on the appended TPP. **NB** Concrete to be mixed on MDF sheeting covered with heavy-duty polythene to prevent any leakage down into the garden soil.
6. **Storage of Construction Material/Equipment:** See area plotted (blue boundary zone) on the appended TPP.

6. SITE SUPERVISION RESPONSIBILITIES

1. It will be the responsibility of the main contractor to ensure that any tree protection planning conditions attached to planning consent are adhered to at all times and that a monitoring regime in regards to tree protection is adopted on site.
2. The main contractor must assign tree protection monitoring duties to one or more individuals working at the site, who will be responsible for all tree protection monitoring and supervision (see the *Site Personnel Induction Form* at Appendix MS i).
3. The individual(s) assigned tree protection monitoring duties must:
 - Be present on site for the majority of the time;
 - Be aware of (a) the Tree Protection Plan and (b) the tree protection measures to be installed and maintained throughout all phases of the development;
 - Be responsible for ensuring all tree protection measures are adhered to as detailed in the Arboricultural Impact Assessment (AIA) report and Arboricultural Method Statement (AMS);
 - Ensure all site operatives without exception read and understand the tree protection and control measures detailed in the AMS;
 - Keep on file all individual Site Personnel Induction Forms which must be signed by all site operatives (including sub contractors) indicating they have read and understood the control measures detailed within the AIA report and AMS;
 - Maintain a written record of Tree Protection / Construction Exclusion Zone inspections, to be kept up to date by the person(s) who have been designated the inspection and monitoring duties;
 - Have the authority to stop any work that is causing, or has the potential to cause, harm to any retention trees;
 - Be responsible for ensuring that all site operatives including sub contractors are aware of their responsibilities toward on/off site trees and the consequences of the failure to observe these responsibilities;
 - Make immediate contact with the Consulting Arboriculturist in the event of any tree related problems occurring, whether actual or potential. (Contact details including telephone number and email address are listed on the Title Page).
4. The Construction Exclusion Zone fencing, ground protection and all signs must be maintained in position at all times and checked on a regular basis by the on-site person(s) who have been designated that responsibility.
5. The main contractor will be responsible for contacting the Local Planning Authority and the Consulting Arboriculturist at any time issues are raised relating to the trees on site.
6. If at any time pruning works are required, permission must be sought from the Local Planning Authority first and then carried out in accordance with BS 3998:2010 Tree Work – Recommendations (As updated).

7. The main contractor will ensure the build sequence and phasing is appropriate to ensure that no damage occurs to the trees during the construction processes. Protective fences will remain in position and undisturbed until completion of ALL construction works on the site.
8. The main contractor will be responsible for ensuring all site operatives including sub-contractors do not carry out any process or operation that is likely to adversely impact upon any tree on site.

7. SITE MONITORING

1. In addition to the Pre-commencement Site Meeting at section 1.0 and the above Contractor Site Supervision, a Consulting Arborist will attend a site meeting (2-3 hours) to supervise the start-up of the following build stages to ensure that the correct practices are followed to ensure adequate tree protection:
 - 7.1.1 Soil bank removal.
 - 7.1.2 Installation of the mini-piles with the rig running over temporary ground protection matting.
 - 7.1.3 Installation of the bike shed ground-beam and ground-floor slab shuttering.
 - 7.1.4 'Mixa-Mate' lorry pouring of the concrete for the ground-floor slab or concrete batch-mixing in the rear garden.

APPENDIX MS(i)

Site Personnel Induction Form

Name:
Site Address:
Date:

Declaration	Tick to Confirm
I have read and understand the Arboricultural Method Statement and the requirements to be employed / actioned at the site regarding tree protection.	
I understand that all tree protection measures (fencing and ground protection) must not be moved or disturbed throughout the development project without prior agreement with the Consulting Arboriculturist.	
I understand that certain operations must only be undertaken under supervision of the Consulting Arboriculturist or a suitably qualified Arborist and/or must not be undertaken without their approval.	
I acknowledge that any concerns I have regarding the protection of trees at and adjacent to the development site will be brought to the attention of the Site Manager/Supervisor.	
I acknowledge that I must not cause direct or indirect damage to any on site or neighbouring tree, either above or below ground level during the course of my daily operational duties.	

Signed:.....

HEADINGS & ABBREVIATIONS

TREE NO.	REFERENCE NUMBER. REFER TO PLAN OR NUMBERED TAGS WHERE APPLICABLE
SPECIES:	COMMON NAME (LATIN NAMES AVAILABLE ON REQUEST)
AGE RANGE/LIFE STAGE:	Y = YOUNG, SM = SEMI MATURE, EM = EARLY MATURE, M = MATURE, PM = POST MATURE
HEIGHT:	ESTIMATED AND RECORDED IN METRES. APPROXIMATELY 1 IN 10 TREES ARE MEASURED USING A CLINOMETER AND THE REMAINDER ESTIMATED AGAINST THE MEASURED TREES
CROWN SPREAD:	MAXIMUM CROWN RADIUS MEASURED TO THE FOUR CARDINAL COMPASS POINTS FOR SINGLE SPECIMENS ONLY (MEASUREMENT FOR TREE GROUPS - MAXIMUM RADIUS OF THE GROUP)
CROWN CLEARANCE &DIRECTION OF GROWTH:	HEIGHT IN METERS OF CROWN CLEARANCE ABOVE ADJACENT GROUND LEVEL (TO INFORM ON GROUND CLEARANCE, CROWN/STEM RATIO AND SHADING)
STEM DIA/MULTI-STEM DIA:	STEM DIAMETER - MEASURED AT APPROXIMATELY 1.5 METRES ABOVE GROUND LEVEL OR A COMBINATION OF STEMS FOR MULTI-STEMMED TREES
VITALITY:	A MEASURE OF PHYSIOLOGICAL CONDITION. D = DEAD, MD = MORIBUND, P = POOR, M = MODERATE, G = GOOD
ESTIMATED REMAINING CONTRIBUTION:	RELATIVE USEFUL LIFE EXPECTANCY (YEARS)
BS 5837CATEGORY & SUB-CATEGORY GRADING:	A = HIGH QUALITY AND VALUE, B = MODERATE QUALITY AND VALUE, C = LOW QUALITY AND VALUE, U = UNSUITABLE FOR RETENTION: SUB-CATEGORY REFERS TO ARBORICULTURAL (1), LANDSCAPE (2) & CULTURAL/CONSERVATION VALUES (3).
BS 5837 RPA:	ROOT PROTECTION AREA - BS 5837 (2012) ANNEX D (THE RECOMMENDATIONS STATE THAT THE RPA SHOULD BE CAPPED AT 707 M ²)
BS 5837 RADIUS:	PROTECTIVE DISTANCE - RADIUS FROM THE CENTRE OF THE STEM TO THE LINE OF TREE PROTECTION (CONSTRUCTION EXCLUSION ZONE - CEZ) AND PROTECTIVE BARRIER

SITE:	11 Briardale Gardens, NW3 7PN
CLIENT:	
BRIEF:	CARRY OUT A PHASE I ARBORICULTURAL IMPACT (<i>TREE CONSTRAINT</i>) ASSESSMENT ON THE PROPOSED DEVELOPMENT AT THE ABOVE SITE.

SURVEYOR:	R. BALL (Anita Nadkarni, Fabricspace: on-site tape & laser measuring)	PAGE: 1 of 3
ASSESSMENT DATE:	20/03/2019	
VIEWING CONDITIONS:	CLOUDY	
JOB REFERENCE:	101 351	

TREE HEDGE GROUP NO.	SPECIES (COMMON NAME)	AGE RANGE/ LIFE STAGE	HEIGHT (m)	RADIAL CROWN SPREAD (m)				CROWN CLEARANCE & DIRECTION OF GROWTH (m)	STEM/ MULTI- STEM* DIA. (mm)	VITALITY	COMMENTS/STRUCTURAL MORPHOLOGY	PRELIMINARY MANAGEMENT	CATEGORY & SUB- CATEGORY GRADING BS 5837	BS 5837 RPA RADIUS (m)	BS 5837 RPA (m ²)
				N	E	S	W								
T1	Ash	EM	9.0	1.8	1.5	4.0	2.2	2.5	128	N	<ul style="list-style-type: none"> At approx.1.3m high the trunk is heavily kinked (almost 90°) likely due to heavy shading from the adjacent elderberry T2. Low and mid-crowns shaded out by underlying large 3m high sprawling <i>Elaeagnus</i> shrub 	None at time of survey (NATS)	C2	1.5	7.4
T2	Elderberry	M	7.5	1.8	2.0	4.5	4.0	1.4	* 180; 170	N	<ul style="list-style-type: none"> Highly suppressed by the adjacent cypresses T7 & T8. As a result the crown is unbalanced and weight to the south. 	NATS	C2	2.9	27.7
T3	Ash	SM	9.5	1.8	1.5	2.0	2.0	3.5	130	N	<ul style="list-style-type: none"> Average etiolated crown form 	NATS	C2	1.5	7.6
T4	Silver Birch	EM	9.0	3	4	4	4	3.8	158	N	<ul style="list-style-type: none"> Low and mid-crown suppressed by underlying sprawling 2.5m high <i>Berberis</i>. 	NATS	C2	1.9	11.3
T5	Lime <i>Third-party tree with no access to fully survey</i>	M	14.0	8	5	6	5	? <i>Distal tree</i>	Est. 700	N	<ul style="list-style-type: none"> Heavily topped in past 	? See access	C2(?) See access	8.4	221.6
T6	Cherry Laurel <i>Third-party large shrub with no access to fully survey</i>	EM	8.0	2.5	2.5	2.5	2.5	3.0	Est. 320; 150	N	<ul style="list-style-type: none"> Average large shrub 	? See access	C2(?) See access	4.2	56.5

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				N	E	S	W								
T7	Lawson Cypress <i>Third-party tree with no access to fully survey</i>	EM	18.0	3.5	3.5	3.5	3.5	4.0	Est. 480	N	<ul style="list-style-type: none"> Poor co-dominate trunk form (progressive structural defect). 	? See access	C2(?) See access	5.7	104.2
T8	Lawson Cypress <i>Third-party tree with no access to fully survey</i>	EM	14.0	3.5	3.5	3.5	3.5	1.8	Est. 420	N	<ul style="list-style-type: none"> Trunk constricted with 'support rope' 	Advise owner to review constricting rope	C2(?) See access	5.1	79.8
T9	Privet <i>Third-party large shrub with no access to fully survey</i>	M	8.0	7	4	6	2.5	2.0	Est. * 150; 150; 120 x 3; 3 x 90	N	<ul style="list-style-type: none"> Crown suppressed on west side by T8 	? See access	C2(?) See access	4.2	55.4
T10	English Oak <i>Third-party tree with no access to fully survey</i>	M	18.0	6	6	7	4	? See access	Est. 900	N	<ul style="list-style-type: none"> Leaning trunk form. Suppressed crown form but still a significant tree in the immediate locale 	? See access	C2(?) See access	10.8	366.4
T11	Lawson Cypress <i>Third-party tree with no access to fully survey</i>	SM	5.0	1.5	1.5	1.8	1.8	1.8	Est. 180	N	<ul style="list-style-type: none"> Trunk constricted with 'support rope'. Heavily suppressed crown form 	Advise owner to review constricting rope	C2(?) See access	2.1	14.6
T12	Sycamore <i>Third-party tree with no access to fully survey</i>	EM	19.0	6	4	6	4	? See access	Est. 500	N	<ul style="list-style-type: none"> Suppressed by flanking trees 	? See access	C2(?) See access	6.0	113.1

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				N	E	S	W								
T13	Horse Chestnut (?) <i>Third-party distal tree with no access to fully survey</i>	M	24.0	9	9	9	4	? See access	Est. 1000	N	• Dominate tree in the immediate locale	? See access	B2(?) See access	12.0	452.3
T14	Lawson Cypress <i>Third-party tree with no access to fully survey</i>	EM	17.0	3	5	5	5	? See access	Est. 350	N	• Suppressed by T15	? See access	C2(?) See access	4.2	55.4
T15	False Acacia <i>Third-party tree with no access to fully survey</i>	EM	19.0	5	5	5	5	? See access	Est. 600	N	• Low and mid-crowns appear to be shaded out by T14	? See access	C2(?) See access	7.2	162.8

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- NOTES
1. Removal of the Soil Bank: This shall be removed by operatives using gardens spades and wheel-barrows (i.e. not using a mini-JCB).
 2. Mini-piling Rig (MP-R) and access. The M-PR will be brought into the site along the side passage way and side path up to the mini-pile location no . 7 and 8. Due to the RPA incursion into the site from the off-site T7 and T10 the MP-R shall not use the garden area for any access.
 3. Mini-piling Rig (MP-R) and temporary ground protection matting (TGPM). In order to operate the MP-R around the footprint of the bike shed and install the piles 1-8 within the Root Protection Area incursion from the off-site trees it shall run on TGPM.

Arbol EuroConsulting Ltd.

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11 Briardale Gardens NW3
Bike Shed
Tree Protection Plan

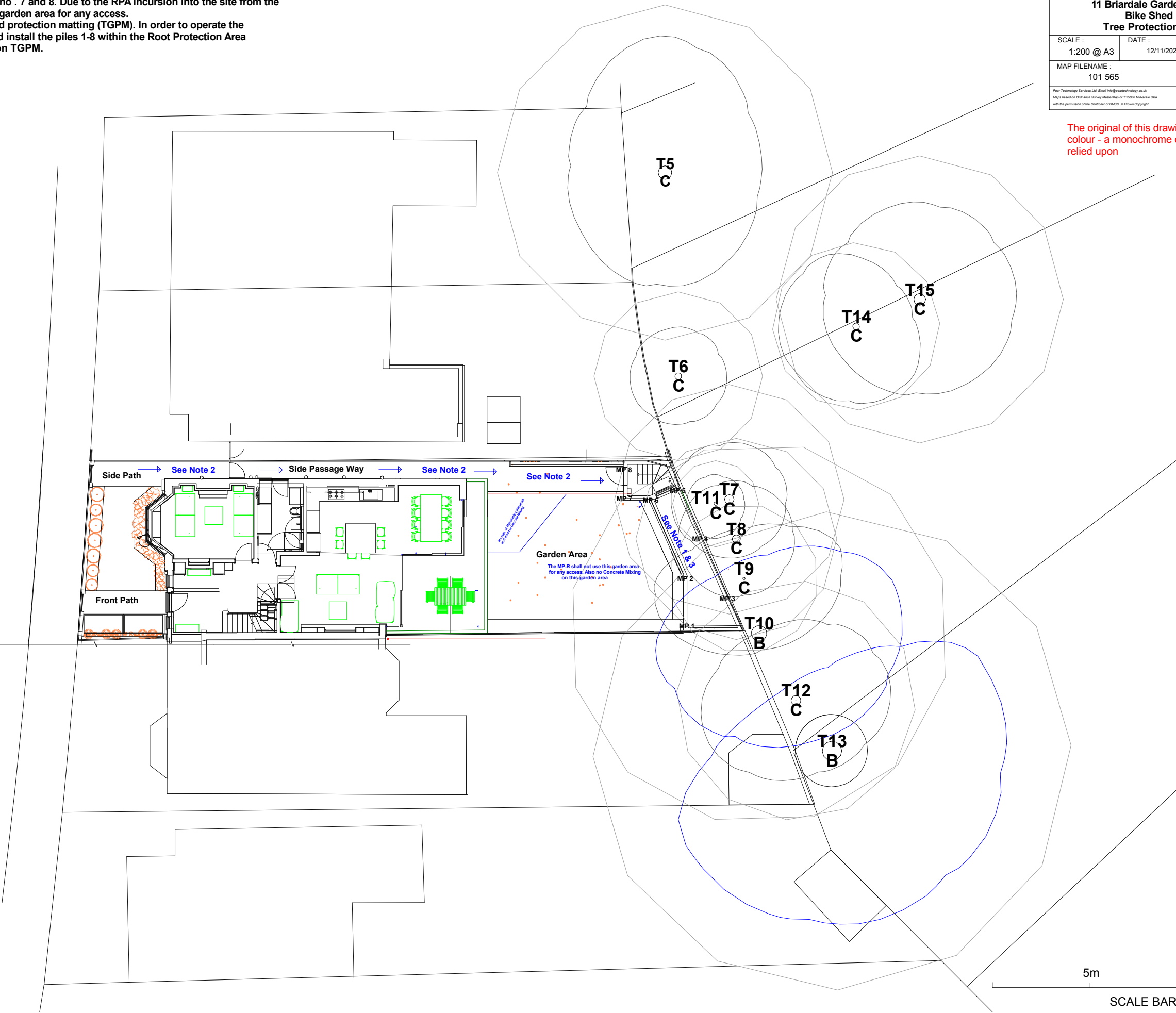
SCALE : 1:200 @ A3
DATE : 12/11/2020

MAP FILENAME :
101 565

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KEY

- Root Protection Area (RPA)
- Crown Spread
- BS: 5837 Retention Grade
- MP = Mini-Pile Location
- Underground Lighting Cable

